A NEW SPECIES OF THE GENUS ARINIA H. & A. ADAMS FROM CHINA (PROSBRANCHIA, CAENOGASTROPODA, DIPLOMMATINIDAE)

ZHANG Wei-Hong¹, CHEN De-Niu², ZHOU Wei-Chuan³*

- 1. College of Life-Science and Technology, Xinjiang University, Urumqi 830046, China
- 2. Institute of Zoology, Chinese Academy of Sciences, Beijing 100101, China
- 3. State Key Laboratory of Molluscan Quarantine and Identification, Fujian Entry-Exit Inspection & Quaratine Bureau, Fuzhou 350001, China

Abstract Arinia maolanensis sp. nov. is described in the present paper. The material was collected by the authors in Libo County, Guizhou Province, China. The type specimens are deposited in the Institute of Zoology, Chinese Academy of Sciences, China.

Arinia maolanensis sp. nov. (Figs 1 – 8)

Holotype. Height 1.60 mm, diameter 0.85 mm, height of aperture 0.55 mm, breadth of aperture 0.40 mm, collected from Maolan Town, Libo County (25°03'N, 118°E), Guizhou Province, China, 9 July 2001.

Paratypes 135 specimens. Height 1.55 – 1.65 mm, diameter 0.80 – 0.88 mm, height of aperture 0.54 – 0.57 mm, breadth of aperture 0.38 – 0.43 mm, collected from Maolan Town, Libo County (25°03′N, 118° E), Guizhou Province, China, 9 July 2001.

Etymology. The name of the new species is based on Maolan Town, Libao County from where the specimens were collected.

Shell small, dextral, thin, translucence, lustrous, cylindrical. Whorls $5\frac{1}{2}$, whorls close the apex increasing rapidly. Spire high, cylindrical. Whorls expanded, last whorl slightly constricted in the center,

distorted, in most cases narrower than the penultimate whorl. Apex blunt, the protoconch smooth, sutures deep. Shell white, with longitudinal ribs, but ribs on the penultimate whorl weak and indistinct, protoconch ribless. Aperture elliptical, obliqued right side, peristome margin thick, with two lips, somewhat expanded and reflexed. Umbilicus small, chinkshaped. Operculum circular, cutin, sunken in the center, with a nucleus and several concentric circle lines.

Remarks. Arinia maolanensis sp. nov. resembles A. japonica Pilsbry & Hirase, 1903, but the new species is smaller (height 1.60 mm, diameter 0.85 mm); shell cylindrical, translucence; the penultimate whorl slightly wider than the body whorl; ribs on the penultimate whorl weak and indistinct; aperture elliptical. The latter is bigger (height 2.00 mm, diameter 1.2 mm); shell cylindrical-oval, semi-translucence; the penultimate whorl wider than the body whorl obviously; shell with longitudinal lamelliform ribs except protoconch; aperture circular.

Habitat. The animals live on limestone areas, love to habitat on the surface of limestone, in moist locality with bryophyte and lichen, or live in chink of rock, under fallen leaves and rotten branch.

Key words Prosobranchia, Caenogastropoda, Diplommatinidae, Arinia, new species.

中国阿勇螺属一新种记述 (前鳃亚纲,新进腹足目,倍唇螺科)

张卫红1 陈德牛2 周卫川3*

- 1. 新疆大学生命科学与技术学院 乌鲁木齐 830046
- 2. 中国科学院动物研究所 北京 100101
- 3. 福建出入境检验检疫局, 国家软体动物检疫鉴定重点实验室 福州 350001

摘 要 记述采自贵州省陆生贝类 1 新种, 茂兰阿勇螺 Arinia maolanensis sp. nov., 对新种形态特征、栖息环境进行了描述, 并对其相似种进行了分析和讨论。

关键词 前鳃亚纲,新进腹足目,倍唇螺科,阿勇螺属,新种.

中图分类号 Q959.212

^{*} Corresponding author, E-mail: wczhou@ 163. com

This research was supported by the National Natural Science Foundation of China (31040072, 31260506) and the Natural Science Foundation in Fujian Province (2012J01063; 2012I0001). (国家自然科学基金项目 (31040072, 31260506) 和福建省科技项目 (2012J01063; 2012I0001))

Received 11 Jan. 2013, accepted 9 Oct. 2013.

阿勇螺属 Arinia 由 H. & A. Adams 于 1856 年确立,此属的特征:贝壳小型,壳质薄,有光泽,呈卵圆柱形,通常壳面有明显的纵肋纹或螺纹,黄色或淡褐色,最后一螺层中部稍缩小,常比倒数第2螺层狭窄,壳口无褶,口缘双重,厣具凹陷,未钙化。本属的种类主要分布于日本、菲律宾、印度尼西亚、澳大利亚等地区(Thiele,1929-1935; Benson, 1859; Vermeulen, 1996; Zilch, 1953; Azuma, 1982; Li,

2005)。

茂兰阿勇螺, 新种 Arinia maolanensis sp. nov. (图1~8)

正模标本 売高 1.60 mm, 壳宽 0.85 mm, 壳口高 0.55 mm, 壳口宽 0.40 mm。采自贵州省荔波县茂兰洞腮, 2001 年 7 月 9 日。副模标本 135 个, 壳高 1.55 ~ 1.65 mm, 壳宽 0.80 ~ 0.88 mm, 壳口高 0.54

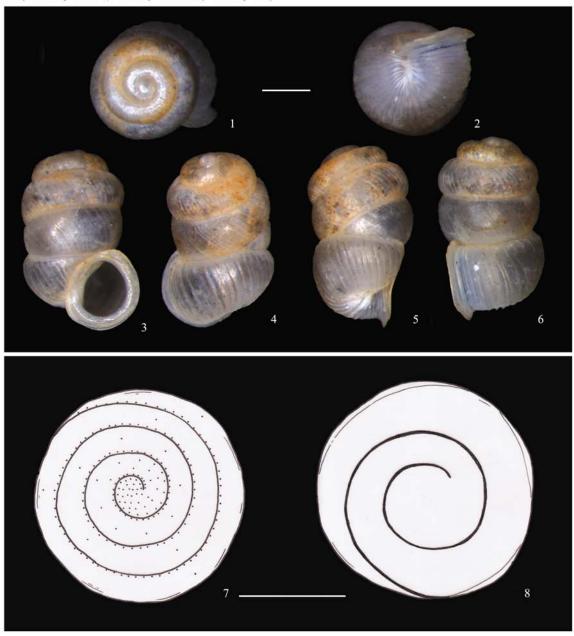


图 1~8 茂兰阿勇螺,新种 Arinia maolanensis sp. nov.

- 1. 顶面观 (apex view) 2. 腹面观 (ventral view) 3. 侧面观 (lateral view) 4. 背侧面观 (dorsal-lateral view)
- 5. 右侧面观 (right-lateral view) 6. 左侧面观 (left-lateral view) 7. 厣外侧观 (outer side of operculum) 8. 厣内侧观 (inner side of operculum)

~0.57 mm, 壳口宽 0.38 ~0.43 mm, 采自贵州省荔波县茂兰洞腮 (25°03′N, 118°E), 2001 年 7 月

9日。

正、副模标本均保存于中国科学院动物研究所。

词源: 新种名源于本种的采集地。

形态特征 贝壳微小型,右旋,壳质薄,易碎,有光泽,透明,呈圆柱形,有5½个螺层,接近壳顶的几个螺层增长迅速,螺旋部高,呈圆柱形。各螺层均膨胀,体螺层中部稍缩小,比倒数第2螺层略小,窄,扭曲。壳顶钝、偏斜,缝合线深。壳面呈白色。在体螺层上有26~28条明显的纵肋,倒数第2螺层上纵肋浅、不明显,倒数第3、第4螺层纵肋细、密、明显,胚螺层光滑,无肋纹。壳口呈椭圆形,向右偏斜,口缘厚,扩大,形成双唇。脐孔狭小,呈缝隙状。厣圆形,未钙化,其中有同心圆环纹,中央凹陷,有1核心。

栖息环境 生活在石灰岩地区,喜欢栖息于石灰岩岩石表面,潮湿、多苔藓、地衣的地方;岩石缝隙中,树叶和枯枝下。

讨论 新种与日本阿勇螺 Arinia japonica Pilsbry & Hirase, 1903 在形态上相似,新种贝壳较小(壳高1.60 mm,壳宽0.85 mm),贝壳圆柱形,透明,壳顶钝,倒数第2螺层略大于体螺层,倒数第2螺层纵肋不明显,壳口椭圆形。后者个体较大(壳高2.00 mm,壳宽1.20 mm),贝壳卵圆柱形,半透明,壳面除胚螺层外,均分布有纵肋,倒数第2螺层明显

大于体螺层及其它螺层, 壳口圆形 (Azuma, 1982)。

REFERENCES

- Azuma, M. 1982. Colored illustrations of the land snails of Japan. Hoikusha Publishing Co., Ltd. Japan. 13 14, pl. 5, f. 45.
- Benson, W. H. 1859. A sectional distribution of the genus Alycaeus Gray, with characters of six new species and of other Cyclostomidae, collected at Darjiling by W. T. Blanford, Esq. Ann. Mag. Nat. Hist. Lond., 3 (3): 176 184.
- Li, Y, Zhou, W-C and Luo, T-C 2005. A new species of Cyclophoridae from Guizhou Province, China (Prosobranchia, Mesogastropoda, Cyclophoridae). *Acta Zootaxonomica Sinica*, 30 (1): 67-69. [动物分类学报]
- Thiele, J. 1929 1935. (Translated by Rudiger Bieler and Paula M. Mikkelsen, 1992), Handbook of Sytematic Malacology, Part I (Loricata: Gastropoda: Prosobranchia). Amerind Publishing Co. Pvt. Ltd. 158.
- Vermeulen, J. J. 1996. Notes on the non-marine molluscs of the island of Bornen 8. The genus *Arinia* aditions to the genera *Diplommatina* and *Opisthostoma* (Gastropoda: Prosobranchia: Diplommatinidae). *Basteria*, 60 (4 6): 87 138, 35 figs.
- Zilch, A. 1953. Die Typen und Typoide des Natur-Museums Senckenberg, 9: Mollusca, Cyclophoridae, Diplommatiniae. *Arch. Moll.*, 82 (1/3): 1-44, Taf. 1-13.